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ABSTRACT

This study, a part of a larger project, investigated what children learn about gender roles from cartoons and how these cartoons might color the children's view of the world. A total of 89 children ranging in age from four to nine were sampled from three different locations (a university-affiliated day-care center and two parochial schools near the university). Interviewers were eight trained senior-level university students in a Women and Communication class. Interviews with the children lasted from 4 to 10 minutes. Results indicated that: (1) children watched more "chase-and-pratfall" cartoons than any other type, but the favorite cartoon type for nearly half of the children was continuing adventure; (2) a strong correlation existed between continuing adventure cartoons and more stereotypically male behaviors; (3) children attributed more of all behaviors to boy characters than to girl characters; (4) both boys and girls described boy characters' behavior as violent and active, but only the girls recognized that boys' behaviors made an impact on girl characters; (5) a majority of children perceived male and female characters in stereotypical ways; (6) children identified very few "real job" behaviors for either boy or girl characters; (7) children whose mothers worked outside the home reported that boy characters engage in fewer stereotypically male behaviors; and (8) the type of cartoon preferred by the children had an impact on their perceptions about cartoon characters. (Contains 51 references and 3 tables of data.) (RS)

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TELEVISION CARTOONS: DO CHILDREN NOTICE IT'S A BOY'S WORLD?

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Former Federal Communications Commissioner Nicholas Johnson once said, "All television is educational; the only question is: what is it teaching?" In a review of literature and theory related to children's learning from television, Williams (1981) concluded "that television can play a positive role in children's learning" (p. 189). Much research has demonstrated, for example, that television viewing can lead children to model aggressive behavior as well as prosocial behavior. Recent efforts to incorporate ecological messages into cartoon story lines (Kahn, 1991) suggest the belief that such messages can teach children concern for the environment. DIC Entertainment, which produces more TV cartoon shows than Disney, Hanna-Barbera and Warner Bros combined, also recognizes the role of TV in children's lives and recently announced a "code of standards" for cartoons. DIC called on "TV's creative community 'to be sensitive to the special developmental needs of children and also to be aware of the unique role that television plays in their lives'" (Prodigy, 1993).

The present study is part of a larger project focusing on what children are learning from television cartoons about gender roles. Research since the 1970s has shown that females have been under represented on television programs, in commercials and in cartoons, that females usually appear in lower status occupations if they are depicted as holding a job, and that female characters appear as less knowledgeable than male characters (see Thompson & Zerbinos, 1994, for a summary of this research). How males and females are portrayed is important because of the media's role in the socialization process for children and adults (Signorielli, 1990) and "in modeling gender-specific behavior" (Remafedi, 1990, p. 59). "Realistic and varied portrayals of men and women will enhance healthy development" and "unrealistic

stereotypes...will negatively influence young viewers" (Remafedi, 1990, p. 60). Because young television viewers relate primarily to same-sex characters, Rosenkrantz, Vogel, Bee and Braverman (1968) suggested that sex-role stereotypes in the media were partly responsible for young women's negative self concepts. Williams (1981) concluded that increased viewing of television can increase stereotyping and Signorielli (1989) also found evidence that television viewing might be related to more sexist views of women's role in society.

Concern about the messages conveyed in television cartoons arises because children start watching television at a very early age, 18 months to 2 years (Hapkiewicz, 1979), and cartoons are the preferred television format of young children (Lyle & Hoffman, 1971). Very young children, in particular, cannot distinguish between fantasy and reality (Baker & Ball, 1969) so what they see in cartoons represents the way the world really is. Young children are unable to differentiate between internal and external experiences and even "puppet and cartoon characters are likely to be thought of as real and alive...." (Noble, 1975, p. 84). A recent case in point is a study by Peyton and Wong (1992) of what children learn about the animal world from cartoons. The researchers found that children who watch cartoons without knowing facts about animals tended to believe animals have human traits.

Several researchers, primarily in the 1970s, have content analyzed television cartoons for their portrayals of male and female characters. As a follow-up to those studies, we content analyzed cartoons on broadcast and cable television in 1993. The results of that content analysis indicated that the great disparity in the presentation of male and female characters in children's cartoons present in the 1970s was still

present in the 1990s. Of equal importance to the presentation of characters, however, are the perceptions held by the children who view them. Do children notice it's a boy's world and that characters are often stereotyped? The second phase of our research focuses on our efforts to learn more about children's perceptions of gender representation in television cartoons.

REVIEW OF THE LITERATURE

Researchers have not recently addressed the issue of representation of gender roles in television cartoons, perhaps because, as a CBS vice president said, "Children's television has always been male dominated" (Poltrack, quoted in Carter, 1991, p. C18). Network executives say they make no pretense of trying to provide programming that appeals to girls because boys outnumber girls in the 2-11-year-old audience on Saturday morning. This means that cartoons are more likely to have males than females as lead characters. If a show is to be successful, they say, it must appeal to boys and boys will not watch shows that have girls as lead characters although girls will watch cartoons with male leads.

More than twenty years ago Streicher (1974) looked at how females were portrayed in cartoons. She found that many cartoons had all male characters, especially in those she categorized as "chase-and-pratfall." When females did appear, they needed to be rescued. Female characters appearing in "continuing adventure" series were stereotypical and had a tendency to fall in love at first sight. Even heroines who were trying to do good caused trouble for everyone in their paths. In "teachy-preachy" cartoons boys outnumbered girls, but girls tended to have more important roles. Streicher summarized that

> In general, cartoon females were less numerous than males, made fewer appearances, had fewer lines, played fewer 'lead roles,' were less active, occupied many fewer positions of responsibility, were less noisy, and were more preponderantly juvenile than males. Mothers worked only in the house; males did not participate in housework. In many activities in which girls showed some form of skill (e.g. cheerleading), their performance was duplicated by a dog or other pet...(p. 127).

Sternglanz and Serbin (1974) also found that there were more than twice as many male roles and that the behavior of males and females was stereotypical in ten cartoons they analyzed. Because many of the cartoons had no female characters, Sternglanz and Serbin purposely selected for analysis those cartoons which had female characters.

Levinson (1975) also found that males outnumbered females on Saturday morning cartoons. More important than their number, though, was the fact that male characters were portrayed in a much greater variety of roles and occupations. Female characters were seen as housewife-mother, girlfriend, grandmother, aunt, villain's daughter, maid, nanny, nurse, teacher, secretary, waitress, singer, movie star, TV reporter, circus performer, and witch. As Levinson concluded, "television's portrayal of the sexes in cartoons does not accurately mirror real world events but it does reflect real world values concerning traditional sex-role assumptions" (p. 569).

Similarly, Japp (1991), after analyzing television's working woman of the 1980s, said television "poses little challenge to cultural definitions of either women or work....The medium's inability to rise above cliches and stereotypes reinforces the power of the cultural tradition that separates women and work..." (p. 72).

Other researchers who have analyzed images on "adult" television have also found that women were under represented and stereotyped. For example, an analysis of prime-time television programs found that the number of women in starring roles

had remained constant over a 25-year period, but were usually found in situation comedies rather than in dramatic series. Fewer women were being portrayed as housewives, as domestic workers or doing clerical work (Dominick, 1979).

Downs (1981) also concluded that some television programming had moved toward fewer traditional sex-role stereotypes being portrayed. Still, Downs found that men were more likely than women to be portrayed as work-oriented and women were more likely to be portrayed in the home. Men were also more likely to deal with problems themselves while women were more likely to seek help and to help others with their problems.

In a review of television content analyses Durkin (1985) concluded that men appeared on television more frequently than women and had higher status occupations. Progress had been made in the quantity and status of roles portrayed by women in television series aimed at single women, but minority women were under represented, according to Atkin (1991). Vande Berg and Streckfuss (1992) found that women overall were under represented and limited in their depictions in prime-time organizational settings, even though more women were represented on television and there was a slight increase in the variety of occupations held.

In a summary of content analyses done over a 15-year period of male and female portrayals on television commercials, Bretl and Cantor (1988) observed a trend toward more equal representation of men and women in commercials, but males were significantly more likely than females to be shown as having an occupation. Women also were more likely than men to be depicted as spouses or parents, although the proportion of men as spouses or parents seemed to be rising.

Researchers have also analyzed the portrayal of females in music videos.

Hansen and Hansen (1988) found that stereotyped sex role portrayals of women and men found in popular rock music videos had the capacity to alter impressions formed of interaction between a man and a woman. More recently, Seidman (1992) found that both male and female characters were shown in sex-typed occupations, and that male characters predominated. However, males held two-thirds of all gender-neutral occupations seen on music videos. Likewise, Signorielli, McLeod, and Healy (1994) found that commercials on MTV are gender stereotyped. "Female characters appeared less frequently, had more beautiful bodies, were more physically attractive, wore more sexy and skimpy clothing, and were more often the object of another's gaze than their male counterparts" (p. 91).

The Creation of Sex-Role Stereotypes

The process leading to the passing-on of sex-role stereotypes in children is, of course, very complex and research on the topic cannot be completely reviewed here. However, we would like to briefly discuss a few of the findings on factors influencing how children learn sex-role stereotypes. That children develop sex-role expectations at an early age has been substantiated in much research (see, for instance, Eaton, 1983; Emmerich & Shepard, 1084; Perry, White, & Perry, 1984; Smeta, 1986), although there is also evidence that these can be changed (Roddy, Klein, Stericker, & Kurdek, 1981). These sex-role expectations are reinforced by peer influences (Carter & McCloskey, 1983-84) as well as by anticipated social and self-sanctions (Bussy & Bandura, 1992). Parental variables are important determinants of sex-role expectations (Hildreth, Richard, & Burts, 1986; Katz, 1987; Thornton, Alwin, & Camburn, 1983). Demographic variables are even better predictors of attitudes concerning women's sex roles than are personality

characteristics (Baker & Terpstra, 1986). School practices, however, also influence sex-role development (Marlowe, 1981; Meece, 1987). Sex-role stereotyping itself influences adolescent sexual behavior (Foshee & Bauman, 1992).

Additionally, media representations have been found to affect sex-role attitudes, especially in daughters (Repetti, 1984). Katz & Boswell (1986) found both peer and media influences to be stronger than parental influences. Peer influences more strongly impacted present-oriented gender preferences, whereas media use affected future expectations. That television (Durkin 1985) and books (De Lisi & Johns, 1984) can change sex-role attitudes has also been indicated.

In a study by Mayes and Valentine (1979) children 8-13 years of age who viewed television cartoons recognized that the characters exhibited stereotypical sex role behaviors. The children evaluated all male and female characters in cartoon episodes on characteristics that included "brave, does not have to be rescued, dominant, intelligent, can make decisions easily, unconcerned about appearance, independent, keeps out of trouble, not easily excited in a crisis, acts as a leader, harsh, aggressive, does not have a strong need for security, does not cry easily" (p. 46). The researchers found significant differences on all dependent variables, and respondents' gender produced no significant interaction effect.

The effects of television cartoons on sex-role stereotyping in young girls were studied in an experimental setting by Davidson, Yasuna and Tower (1979). Thirty-six 5- and 6-year-old girls watched three Saturday morning network cartoons exemplifying reverse stereotyping, high stereotyping or neutral behavior. Sex-role stereotyping scores were lower after exposure to the reverse stereotyping program, but the difference was not significant for children who watched the neutral and high

stereotyped programs. The researchers suggested, in retrospect, that this might be due to the fact that the neutral program was subtly stereotyped. In the neutral cartoon, a physically unattractive female character contributed equally with the boys in solving a mystery but the other female character, an attractive blond, was passive.

Forge and Phemister (1987) looked at the effect of prosocial cartoons on preschool children's behavior. Forty children, 3-5 years of age, were randomly assigned to watch a prosocial animated video, a neutral animated video, a prosocial non-animated video, or a neutral non-animated video. Prosocial behavior was defined as sharing, cooperation, delay of gratification, and social contacts. The researchers found support for their hypothesis that prosocial animated and non-animated programs would elicit more prosocial behavior than neutral programs.

Research Questions

In Phase I of our research, we analyzed 175 episodes of 41 different cartoons appearing on broadcast and non-pay cable channels in 1993. Notable discrepancies between male and female characters were found. Both male and female characters were portrayed stereotypically and male characters were given much more prominence than were female characters. Male characters appeared more frequently and talked significantly more than did female characters. Comparisons of cartoons with copyright dates pre- and post-1980, however, indicated significant change toward a less stereotypical portrayal of the characters, particularly female characters, in the more recent cartoons. This could be considered a positive sign, except that pre-1980 cartoons are still standard television fare and popular with young children.

Although there is a preponderance of evidence regarding the stereotyped presentation of male and female characters in cartoons, there is little evidence that

shows how children view these cartoons. What do children see about males and females when they view cartoons? Do they notice differences between male and female characters' communication and other behaviors? Do these perceptions influence how they view gender roles? Obviously, it is important to know whether children notice the disparity that exists in the presentation of male and female characters in order to understand what children are learning about gender roles from cartoons and how these cartoons might color their view of the world. Therefore, Phase II of this research attempted to learn more about these perceptions through structured interviews with children. The following research questions were asked:

RQ1: When children watch cartoons, what do they see in terms of:

-- frequencies of male and female characters?

-- what male vs. female characters say and do?

-- how much male vs. female characters talk?

RQ2: Is there a relationship between the type of cartoons watched or preferred (continuing adventure, chase-and-pratfalls, or teachy-preachy) and

-- reported behaviors for male and female characters?

-- sex-stereotypical job preferences?

The following research questions were asked in regard to all the dependent variables:

RQ3: Are there significant differences between male and female respondents?

RQ4: Are there significant differences between those children whose mothers work outside the home and those who do not?

RQ5: Are there any differences between children whose mothers work in traditionally female vs. non-traditional jobs?

RQ6: Are there any age differences among the children surveyed?

RQ7: Are there any differences among the three data-collection sites?

RQ8: Are there any differences among children who watch cartoons only on weekdays, only on weekends, or both?

METHODS

Subjects

Children ranging in age from four to nine were sampled from three different locations (N=89). Age four was selected as the young-age cutoff point after pretesting indicated that most four year olds were able to generalize boy vs. girl cartoon characters, whereas younger children were not. Age nine was selected as the upper limit because older children tend to prefer programs other than kiddie cartoons (Lyle & Hoffman, 1971). This was also borne out in a pretest which revealed that older children were more likely to watch situation comedies and action programs such as "Mighty Morphin Power Rangers" than animated cartoons.

A university-affiliated day-care center which houses close to 100 children allowed sampling of children ages four to six. Interviews were conducted with teachers of the children to determine which children had communication skills adequate to answer the interview questions. This included all of the five and six year olds, and most of the four year olds. After obtaining permission from the director of the center, letters were given to the parents of the selected children (n=31) requesting consent for the children to participate in the study. The letter described the purpose of the study and explained the questions to be asked of the children. It also asked parents not to discuss the study with the children until after the data were collected. Parents were asked to sign a consent form to indicate permission. The response rate

within this site was 77% (n=24). Most parents in this center are solidly middle-class, although a few are lower-income.

The second data collection site was a parochial school near the university. In order to avoid interfering with school activities and other research projects in progress, the principal of this school suggested sampling children in the after-school program run on the school grounds. This program enrolls 25 children, most of whom are between the ages of 6 and 9. Parents of these children received letters with the information noted in the paragraph above, and some additional information about the importance of the study. A note from the principal indicating her support of the project was also attached. The response rate at this data site was 64% (n=16). These parents, too, were primarily middle-class, with a few lower-income.

The third data collection location was another local parochial school, located about three miles from the other data collection sites. Children in grades 1 through 3 were sampled at this site. Regular classes rather than an after-school program were sampled. Parents here received a letter similar to that sent to the parents of the parochial school. Permission was requested from the parents of 130 children. The response rate here was 37.7% (n=89). The final sample included 44 boys and 44 girls (one child's sex was not noted by the interviewer).

Procedures

A structured interview guide was developed to gather several types of information. The interview opened with a screening question to determine whether or not the child being interviewed had ever watched cartoons. Then some basic data about the child were gathered: age, number and ages of siblings, whether or not the child's mother worked outside the home and, if so, what kind of job she had. The

child was asked to identify how frequently he or she watched cartoons (schooldays, weekends, or both), to list the cartoons he or she viewed, and to identify a favorite cartoon. This was followed by requests for descriptions of boy characters on most cartoons and girl characters on most cartoons[1] (what they're like, what they say and do), and questions about who talks more on cartoons -- boy characters or girl characters -- and whether there are more boy or girl characters on cartoons. The interview closed with questions about what the child would like to be when he or she grows up and what kinds of jobs boys and girls are likely to have when they grow up.

After pilot testing the interview guide, eight senior-level students in a Women and Communication class taught by one of the authors were trained as interviewers. The training included discussion of the interview guide, observation of one author conducting interviews, and practice sessions by the interviewers with feedback from the researchers. Emphasis was placed on consistency in the phrasing of questions and in probing and feedback provided to the child. Each interviewer both observed and engaged in several practice interviews. Training for a particular interviewer was considered completed when the interviewer demonstrated consistency in a final practice interview observed by one of the researchers.

Interviews were conducted at the various data collection sites within private rooms, each of which had a table and two chairs or two classroom desks. Interviews were conducted throughout the day at the day care center and the third data

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[1]In the pre-test, children were asked to describe the characters on their favorite cartoons. Because they instead described behaviors of characters in all cartoons they watched, this change was made in the instrument.

collection site, and 3-6 p.m. at the extension program in the second data collection site. Each child was told only that the interviewer wanted to ask some questions about cartoons, the child's family, and him or herself. Interviews ranged in length from four to ten minutes, depending upon the depth of response given by the child. Interviewers were instructed to write down everything the child said in response to each question. Any probes to be allowed were noted on the interview guide.

Responses to the open-ended questions were coded by nine trained coders, all of whom were junior or senior-level undergraduates. A coding scheme was developed by the researchers after examination of the responses to the questions. The coding scheme attempted to categorize the jobs of the mothers into traditionally female (teacher, secretary, nurse, etc.) vs. not traditionally female. The cartoons watched by the children and their selection of a favorite cartoon were coded as continuing adventure, chase-and-pratfall, or teachy-preachy, following the categorization offered by Streicher (1974) and utilized in the content analysis of cartoons described above which had been conducted by the authors of the present study. Behaviors engaged in by the boy and girl characters were categorized as silly, violent, active, considerate, "job"-related, traditionally male, or traditionally female. The last two categories were utilized only in cases where the behavior did not fit any of the other categories. The children's own career aspirations and their conceptions of the jobs appropriate for boys and girls were coded as stereotypically male, stereotypically female, or gender neutral/mixed.

After training in use of the coding scheme, inter-rater reliability was assessed by comparing the coding of each rater on practice data with the coding of those same data by one of the authors. The coder was considered reliably trained when his or

her coding agreed with the researchers' at least 90% of the time. The coder was then allowed to code interview responses on his or her own, although all data coding was done in the presence of one of the researchers.

RESULTS

The average age of children in the sample was 7.44. There were 16 four year olds, 4 five year olds, 13 six year olds, 18 seven year olds, 20 eight year olds, and 17 nine year olds. Seventy percent of the children had mothers who work outside the home. Of the working mothers, 47% worked in traditionally female jobs and 17% worked in other types of jobs. The remaining children could not identify their mother's job. Thirteen percent of the children watched cartoons on schooldays, 20% on weekends, and 67% on both schooldays and weekends.

When the children were asked which cartoons they watched, they named 81 continuing adventure, 26 teachy-preachy, and 138 chase-and-pratfall cartoons. A list of cartoons named by children is presented in Table 1. Seven children said they watched "all the cartoons." Continuing adventures were selected as favorites 47% of the time, followed by chase-and-pratfalls at 39%, and teachy-preachy at 14%.

Insert Table I about here

Research Question 1

In response to RQ1, 78% of the children thought that there were more boy characters in cartoons, 12% selected girls, and 10% thought there was no difference between the number of boys and the number of girls in cartoons. Two interview questions asked children to identify what boy characters or girl characters on

cartoons are likely to be like, to do, or to say. For the boy characters, 60 "silly" behaviors were mentioned, followed by 46 "violent" behaviors, 32 "active" behaviors, 14 behaviors that are stereotypically male, 12 "real job" behaviors, and only one behavior that is stereotypically female. Girl characters were identified as engaging in 43 behaviors that are stereotypically female, 23 "silly" things, 17 "considerate" behaviors, 13 "active" things, 12 behaviors that are stereotypically male, ten "violent" things, and seven "real job" behaviors. A representative list of the behaviors that were mentioned by the children is provided in Table II.

Insert Table II about here

Sixty eight percent of the children thought that boys talk more on cartoons, while 16% selected girls and 16% thought there was no difference. Most of the children were able to identify jobs that boys or girls usually have when they grow up. A total of 160 stereotypically male jobs was listed for boys, followed by 21 gender neutral or mixed jobs, and 10 stereotypically female jobs. For girls, 42 stereotypically male jobs, 98 stereotypically female jobs, and 29 gender neutral or mixed jobs were identified.

Comparisons of the behaviors identified for girls vs. boy characters also yielded some interesting patterns. Boy characters were identified as engaging in significantly more violent behaviors (boys=1.15, girls=.50; t=3.11, df=19, p=.006), more silly behaviors (boys=1.15, girls=.77; t=3.08, df=25, p=.005), and fewer stereotypically female behaviors (boys=.07, girls=.93; t=4.16, df=13, p=.001). Summative measures were created by adding together all the stereotypically male behaviors (violent, active, and stereotypically male) and all the stereotypically female behaviors

(consideration and stereotypically female). Comparisons of these scores for boy vs. girl characters indicated the girls scoring higher on the female behaviors (boys=.17, girls=1.00; t=2.42, df=11, p=.034) and boys scoring higher on the male behaviors (boys=.92, girls=.25; t=2.97, df=11, p=.013).

Research Question 2

Some interesting relationships were observed among the variables in the study. Children who watched more continuing adventure cartoons reported that boy characters engaged in more violent behaviors (r=.40, p<.01), more active behaviors (r=.52, p<.01), more considerate behaviors (r=.63, p<.05), and more stereotypically male behaviors (r=.70, p.01). They also said that girl characters engaged in more violent behaviors (r=.66, p<.01), more active behaviors (r=.66, p<.01) and more stereotypically female behaviors (r=.44, p<.01). In addition, there was a positive correlation between the number of continuing adventure cartoons and the number of stereotypically female jobs identified as being likely for girls (r=.37, p<.05).

Children who watched more teachy-preachy cartoons reported more active behaviors for boys in cartoons (r=.48, p<.05) and more considerate (r=.49, p<.05), and stereotypically male behaviors(r=.60, p<.05) for girls. Increased viewing of chase-and-pratfall cartoons was associated with the reporting of more active behaviors for boys in cartoons (r=.30, p<.05) and more stereotypically female jobs for boys (r=.46, p<.05).

To look for additional differences among children with different cartoon preferences, analyses of variance were conducted with the independent variable being "favorite" cartoon (indicating the type of cartoon that the child had selected as his or her favorite – a continuing adventure, a chase-and-pratfall, or a teachy-preachy).

Significant differences were observed on only two variables. Children who preferred continuing adventure cartoons reported more violence for boy characters (1.63) than did children who preferred preachy-teachy (.80) or chase-and-pratfall (.75) cartoons ($F=3.78$, $df=2,33$, $p=.03$). This same trend was observed for reports of the jobs that were appropriate for boys. Children who preferred continuing adventures (2.33) listed more stereotypically male jobs for boys than did children who preferred teachy-preachy (1.11) or chase-and-pratfall (1.88; $F=4.45$, $df=2,63$, $p=.02$).

Children who preferred continuing adventure or chase-and-pratfall cartoons were more likely to note that boys predominated on cartoons, where children who preferred teachy-preachy cartoons were equally divided among boys, girls, and no difference ($X^2=11.43$, $df=4$, $p=.02$). This pattern emerged even more strongly when analyses looked at total scores of the numbers of continuing adventure, chase-and-pratfall, and teachy-preachy cartoons mentioned as being viewed by each child. Those children who listed more continuing adventures felt that boy characters predominated, those who listed more chase-and-pratfalls tended to feel that way, but not as strongly, and those who listed more teachy-preachy cartoons all reported no difference in the number of boy and girl characters ($X^2=12.29$, $df=4$, $p=.01$).

Research Questions 3-5

Additional t-tests were conducted to examine differences between female and male respondents. Boys tended to watch more continuing adventure cartoons (1.80) than did girls (1.17; $t=2.23$, $df=52$, $p=.03$) and to watch all cartoons more frequently (2.67) than girls (2.35; $t=2.01$, $df=84$, $p=.047$), but no other statistically significant differences emerged. Children whose mothers worked tended to watch more cartoons overall (work=2.65, nonwork=2.17; $t=2.76$, $df=82$, $p=.008$), watch fewer

chase-and-pratfall cartoons (work=1.73, nonwork=2.29; t=1.92, df=70, p=.05), report that boy characters engage in fewer stereotypically male behaviors both on the individual item addressing male behaviors (work=.47, nonwork=1.00; t=2.18, df=20, p=.042) and on the summed item (work=.44, nonwork=2.50; t=3.74, df=11, p=.003). Finally, analysis showed an almost-significant statistical trend for boys whose mothers worked to be more willing to report female stereotypic or gender-neutral/mixed job aspirations (X^2=3.35, df=2 p=.06).

Using the chi-square statistic, no significant differences were observed on the nominal variables between children whose mothers did or did not work, or between those children whose mothers worked in traditional vs. nontraditional jobs. Although it was not statistically significant, there was a trend for children whose mothers worked to note more girl characters or to report no difference in the numbers of boys and girls than was the case for children whose mothers did not work (X^2=8.16, df=4, p=.08)

Children whose mothers worked in traditional female occupations reported seeing less violent behavior in boy characters (traditional=1.07, nontraditional=2.25; t=2.25, df=16, p=.017), less stereotypically male behavior in boy characters (traditional=.25, nontraditional=1.00, t=3.00, df=6, p=.024), and less stereotypically female behavior in girl characters (traditional=1.17, nontraditional=2.33; t=2.59, df=13, p=.022).

Research Questions 6-8

To examine differences among schools, additional analyses of variance were conducted. However, no statistically significant differences emerged among the three schools. Other analyses of variance examined differences among children who

watched cartoons on schooldays, weekends, or both. Since only one of these analyses was statistically significant, which could be due to experimentwise error, these results will not be reported. One other difference was noted on this variable. Children who watch cartoons on both schooldays and weekends were more likely to report no differences between the numbers of male and female characters than were children who watched cartoons on just schooldays or just weekends (X^2=12.49, df=6, p=.05). No significant chi-squares, however, emerged on a similar question, which asked whether boy or girl characters talk more on cartoons.

The final set of analyses of variance looked at differences among the age groups. While some statistically significant differences emerged, it appeared that all the results were due simply to increasing cognitive ability of the older children. The older children were able to list more of almost everything than the younger children. Thus, it will be assumed that these results are not germane to the present investigation.

Chi-square results indicated that continuing adventure cartoons were preferred by more children than any other type; this was particularly noticeable with older children. Younger children appeared to like the chase-and-pratfall cartoons a bit more than did older children (X^2=24.21, df=12, p=.02). No significant differences emerged on favorite cartoons among the schools or among children who watched cartoons on schooldays, weekends, or both.

There were, however, some differences in responses to the question of whether there are more boys or girls on cartoons. Younger children were more likely to claim there was no difference in the numbers of boys and girls on cartoons, whereas the older children got, the more likely they were to report that there were more boys on

cartoons than girls (X^2=26.71, df=12, p=.008).

DISCUSSION

In the first phase of this research, which involved a content analysis of 175 cartoon episodes, the authors found differences in the characteristics of male and female characters among the cartoon categories. Male characters in teachy-preachy cartoons were the least stereotypical, warmest, most emotional, important, romantic, affectionate and helpful. Female characters in chase-and-pratfall cartoons were least competent, failing frequently, least active and most troublesome. Male characters in chase-and-pratfall cartoons were most nonstereotypical, as well as least competent, technical and responsible. Male characters in continuing adventures were most stereotypical -- hardy, verbally aggressive, used threats, bossed or ordered others, and frequently rescued others or demonstrated bravery -- and females were least stereotypical. Females in continuing adventures were the least domestic and helpless and most intelligent of female characters in all types of cartoons, but there were not nearly as many female characters in those cartoons. There were many more female lead and minor characters in teachy-preachy cartoons.

These results are important for interpreting the responses of children in the present study. Children in this study watched more chase-and-pratfall cartoons than any other type, but the favorite cartoon type for nearly half of the children was continuing adventure. The least favorite cartoon type was teachy-preachy. This means that children were more likely to be exposed to stereotypical males and nonstereotypical females in their favorite continuing adventure cartoons, and incompetent males and females in the chase-and-pratfall cartoons, which dominated their viewing. In the present study, however, there was a strong correlation between

continuing adventure cartoons and more stereotypically male behaviors. The correlation between continuing adventure cartoons and more stereotypically female behaviors was positive as well, but not nearly as strong.

Naturally, cause and effect conclusions cannot be drawn from this research. Nevertheless, it is instructive to look at the responses from children regarding the cartoon characters. Overall, children in this study attributed more of all behaviors -- silly, violent, active, stereotypically male, and real job behaviors -- to boy characters than to girl characters. They also perceived boys to be nearly three times as likely as girls to do silly things and four and a half times as likely as girls to engage in violent deeds. Generally, boys described boy characters' behavior as violent and active. They did not mention behaviors that implied any sort of relationship between boy and girl characters. Girls likewise saw boy characters as engaging in violent and active behaviors but also recognized boys' behavior that impacted on girl characters, such as teasing and making fun of them. This sensitivity in the girls to treatment by boys is certainly provocative.

With some exceptions, boys tended to describe girl characters in the context of their relationships to boys or interest in boys. Boys also described girl characters' domestic behavior or referred to girls' appearance. Girls described girl characters as domestic, playing with dolls, dressing up, and chasing boys. Clearly, the majority of children in this study perceived male and female cartoon characters in stereotypical ways.

Children in the present study identified very few "real job" behaviors for either boy or girl characters, and were less likely to cite real job behaviors for girls than for boys. This is not surprising when looked at in the context of our content analysis of

cartoons which showed that male characters were more likely to have some sort of real job and females were more likely to be cast in the role of caregiver. These differences are somewhat consistent with real-world occupations in that more males do have jobs outside the home than do females and females are more likely to be caregivers. However, the analysis of cartoons showed only 13% of the female characters had jobs, and male characters were never shown as caregivers, which is not consistent with real-world data. How does this translate into perceptions held by children of the kinds of jobs that boys and girls have when they grow up? Children whose favorite cartoons were continuing adventures -- more likely to be boys and older children -- listed more stereotypically male jobs for boys than did children who preferred either teachy-preachy or chase-and-pratfall cartoons.

Children whose mothers worked outside the home reported that boy characters engage in fewer stereotypically male behaviors. Curiously, children whose mothers worked in traditionally female occupations -- nearly half of all working mothers in the sample -- also reported seeing less violent behavior in boy characters, less stereotypically male behavior in boy characters, and less stereotypically female behavior in girl characters. The meaning of this finding, which is counter-intuitive to what might be expected, should be explored in future research.

Network executives have said that boys outnumber girls in the 2-11-year-old audience on Saturday morning. If a show is to be successful, they say, it must appeal to boys, who will not watch shows that have girls as lead characters although girls will watch programs with male leads (Carter, 1991). Our content analysis found significantly more male than female leads as well as minor characters, and also found that male lead characters talked significantly more than female lead characters. It is

not surprising then that the majority of children interviewed in the present study also observed that there were more boy characters than girl characters in cartoons they watched and that boys talked more on cartoons. The older the child, the more likely the child was to be aware of the discrepancy between the number of male and female characters. It also came as no surprise that boys watched all cartoons more frequently than did girls. Children whose mothers worked tended to watch more cartoons overall as well as significantly fewer chase-and-pratfall cartoons, the latter probably being more a function of age than having a mother who worked.

The type of cartoon preferred by the children clearly seemed to have had an impact on their perceptions about cartoon characters. Unfortunately, the teachy-preachy cartoons, which are the most positive overall in terms of their portrayals of male and female characters, also were the least popular among children in this study. It is possible that teachy-preachy cartoons are more popular among younger children, who were not included in the present study when pilot testing indicated that they had difficulty answering many of the questions.

Finding a way to determine the impact on younger children would be a challenge for future research because even in our sample there was sometimes a lack of coherence in the responses of younger children . Categorization of responses was also difficult. Obviously, a limitation of this study is that the findings cannot be generalized to a larger population. Children in the sample are somewhat homogenous in terms of race and socioeconomic status, although the sample did include some African-Americans and Hispanics. Future research should sample from a more inclusive population.

Children in this study observed differences in the way male and female

characters are portrayed in television cartoons. As the literature suggests, the depictions about gender roles seen by children could impact both the expectations they develop about relationships and appropriate behavior, and their future life-decisions. It is important to keep in mind, too, that the concern about stereotyping is not less severe because these are cartoons and not "real life." As much of the literature shows, young children accept fantasy as reality and cannot distinguish between the two. The impact of observing sex-role stereotypical behavior in children's cartoons or any other medium, of course, cannot be ascertained merely through content analysis or through the present study of children's perceptions. Parental intervention, for example, could help mitigate the influence of stereotypes seen on cartoons and other television programs. Nevertheless, the fact that children's perceptions of cartoon characters are consistent with the findings of stereotypical behavior in our content analysis and that of previous research leads to a continuing concern about these issues.

Table I

Cartoons Watched

Cartoons Watched by Girls

Addams Family*
Animaniacs*
Aesop's Fables*
Batman*
Bobby's World*
Bugs Bunny*
Bullwinkle's
Care Bears
Carmen San Diego
Conan
Critic*
Darkwing Duck*
Dennis the Menace*
Donald Duck
Double Dragon
Doug*
Duck Tales
Flintstones
Garfield
Gummy Bears*
Heckle and Jeckle
Ice Castle
Johnny Quest
King Arthur and the Knights of Justice
Legends of the Hidden Temple
Little Mermaid
Mighty Max
Looney Toons*
Mickey Mouse
Minnie Mouse*
Moose-A-Rama
My Little Pony Tales*
Pirates of Darkwater*
Quack Attack*
Ren & Stimpy*
Rug Rats*
Simpsons
Smurfs
Sonic the Hedge Hog*
Tailspin*
Tasmania
Thumbelina
Tiny Toons*
Tom & Jerry
X-Men
Yogi Bear

Cartoons Watched By Boys

Animaniacs*
Batman*
Bobby's World*
Bonkers
Bots Master
Bugs Bunny*
Captain America*
Captain Planet
Carmen San Diego*
Centurions
Conan
Darkwing Duck
Dennis the Menace
Dog City
Donald Duck
Doug
Duck Tales
Eak the Cat
Garfield
Godzilla
Goof Troupe
Gummy Bears
Jetsons
Johnny Quest*
Looney Toons*
Merrie Melodies
Pink Panther
Pirates of Darkwater
Popeye*
Porky Pig
Problem Child
Ren & Stimpy
Rug Rats
Sonic the Hedge Hog*
Spiderman
Superman*
Tasmania
Teenage Mutant Ninja Turtles*
Simpsons*
Tiny Toons
Tom & Jerry*
Tom & Jerry Kids
Top Cat
Transformers*
Weinerville
X-Men*
Yogi Bear

*Indicates favorite cartoon

Table IIa

What Children Said Boy Cartoon Characters Do and Say

What Boys Said About Boys

Act like animals
Batman--captures crooks
Break things
Bump into walls
Change into dresses
Chase bad guys
Cyclops--Shoots from his eyes, Talks neat, Visor blows things up
Do Karate
Do funny things
Fix things
Get in trouble
Have adventures
Have guns
Have safes fall on them
Hang upside down
Help people
Hunt
Jump in front of cars
Like to fight
Make bombs
Make fun of people
Make jokes
Mean
Not nice to people
Popeye--hits Bluto in face
Rescuers
Run over things
Say funny things
Shoot guns at bad guys
Sonic--Runs 10 zillion mph
Sports
Tom & Jerry chase each other
Tries to trap, but backfires
Try to hunt
Use a sword and chop things
Work a lot

What Girls Said About Boys

Blow things up
Cause Trouble
Do flips
Do funny things
Drop bricks on people
Fight ugly monsters
Have guns
Hunt
"I'm going to hit you"
Like to fight
Make funny jokes about girls
Make fun of their sisters
Mean
Play with girls
Say funny things
Skateboard
Spit
Swing on ropes
They have children
Think they are the smartest
Tom & Jerry chase each other
Trick others
Try to catch girls
Usually bad guys
Wrestle
Write stories and songs

Table IIb
What Children Said Girl Cartoon Characters Do and Say

What Boys Said About Girls

Act like boys
Act like normal, real people
Ask boys out on dates
Be serious
Boring to watch
Fight sometimes
Follow what boys say
Get boys out of trouble
Goozling--gets frustrated with Darkwing Duck because he won't let her chase bad guys
Gummy bears--grandmother bakes
Hug & Squeeze
Jump up and down
Kicked the bad guys
Left out of play
Lift weights
Nice
Not as adventurous
Say "I'm Pretty"
Sew
Swim
Talk a lot
Talk about babies
Talk Funny
Talk to boys
Teased by boys
Try to beat up boys
Usually wearing dresses
Want kisses
Want to be bad
Wear rings
Woop the boys

What Girls Said About Girls

Act like boys
Act wild
Chase boys
Chores around the house
Cook
Correct the boys
Daisy--fashionable
Do nice things
Dress up
Fight sometimes
Flower girls or bridesmaids
"Have you been a good girl today?"
Help their families
"I like you"
"I'm going to tell your parents"
Mean
Nice
No guns
Not as funny as the boys
Not as weird as the boys
Play with Barbies
Play with toys
Polite
Pretty
Princesses
Run after the boys
Say "excuse me" a lot
Say "help, help" all the time
Smarter than the boys
Sometimes silly
Talk funny
Tell stories

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